

MAR 28 2011

Electric Distribution Utility Annual Reliability Report

PUBLIC SERVICE
COMMISSION

SECTION 1: CONTACT INFORMATION

UTILITY NAME	1.1	<u>Clark Energy Cooperative</u>
REPORT PREPARED BY	1.2	<u>Scott Sidwell</u>
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SECTION 2: REPORT YEAR

CALENDAR YEAR OF REPORT	2.1	<u>2010</u>
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SECTION 3: MAJOR EVENT DAYS

TMED	3.1	<u>14.9</u>
FIRST DATE USED TO DETERMINE TMED	3.2	<u>6/21/2010</u>
LAST DATE USED TO DETERMINE TMED	3.3	<u>6/21/2010</u>
NUMBER OF MED IN REPORT YEAR	3.4	<u>1</u>

NOTE: Per IEEE 1366 TMED should be calculated using the daily SAIDI values for the five prior years. If five years of data are not available, then utilities should use what is available until five years are accumulated.

SECTION 4: SYSTEM RELIABILITY RESULTS

Excluding MED

SAIDI	4.1	<u>127</u>
SAIFI	4.2	<u>1.280</u>
CAIDI	4.3	<u>111</u>

Including MED (Optional)

SAIDI	4.4	<u>142</u>
SAIFI	4.5	<u>1.38</u>
CAIDI	4.6	<u>116</u>

Notes:

- 1) All duration indices (SAIDI, CAIDI) are to be reported in units of minutes.
- 2) Reports are due on the first business day of April of each year
- 3) Reports cover the calendar year ending in the December before the reports are due.
- 4) IEEE 1366 (latest version) is used to define SAIDI, SAIFI, CAIDI, and TMED

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SECTION 5: OUTAGE CAUSE CATEGORIES

Excluding MED

CAUSE CODE DESCRIPTION		SAIDI VALUE	CAUSE CODE DESCRIPTION		SAIFI VALUE
Tree out of ROW	5.1.1	70.1200	Lightning	5.2.1	0.017
Power Supply	5.1.2	24.5300	Tree Out of ROW	5.2.2	0.008
Lightning	5.1.3	17.3800	Unknown	5.2.3	0.006
Deterioration	5.1.4	12.5900	Deterioration	5.2.4	0.004
Other	5.1.5	9.2400	Other	5.2.5	0.003
Unknown	5.1.6	5.3000	Tree In ROW	5.2.6	0.003
Vehicle	5.1.7	4.7900	Overload	5.2.7	0.003
Tree in ROW	5.1.8	3.8400	Animal	5.2.8	0.002
Wind	5.1.9	2.5700	Wind	5.2.9	0.001
Wood Cutter	5.1.10	1.6400	Scheduled	5.2.10	0.001

SECTION 6: WORST PERFORMING CIRCUITS

CIRCUIT IDENTIFIER		SAIDI VALUE	MAJOR OUTAGE CATEGORY
Frenchburg 4	6.1.1	20.07	Tree Out of ROW
Hope3	6.1.2	9.65	Lightning
UnionCity1	6.1.3	9.12	Lightning
Cave Run 1	6.1.4	8.18	Tree Out of ROW
Three Forks 2	6.1.5	7.33	Lightning
Hunt 3	6.1.6	5.36	Lightning
Hunt 2	6.1.7	4.85	Lightning
Frenchburg 1	6.1.8	4.74	Tree Out of ROW
Hunt 4	6.1.9	4.43	Lightning
Mariba 2	6.1.10	3.78	Lightning

CIRCUIT IDENTIFIER		SAIFI VALUE	MAJOR OUTAGE CATEGORY
Hunt 3	6.2.1	0.0030	Lightning
Hunt 4	6.2.2	0.0029	Lightning
Sideview 1	6.2.3	0.0023	Lightning
Frenchburg 4	6.2.4	0.0023	Tree Out of ROW
Three Forks 1	6.2.5	0.0020	Lightning
Marbia 2	6.2.6	0.0018	Lightning
Union City 2	6.2.7	0.0017	Lightning
Hunt 1	6.2.8	0.0017	Lightning
Hope 3	6.2.9	0.0016	Lightning
Van Meter 3	6.2.10	0.0015	Lightning

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Additional pages may be attached as necessary
SECTION 7: VEGETATION MANAGEMENT PLAN REVIEW

Clark Energy's ROW budget for 2011 has increased nearly 30% over the 2010 budget in order to stay on a system schedule for clearing. Four substations were bid out to two different contractors and three hourly crews were also retained to address customer requests, new line clearing and work plan projects. Outages tagged as being caused by trees in the ROW are checked by our ROW coordinator and cleared as needed. High volume foliar herbicide spray will be used in the summer months, going back over recently cleared substation circuits to reduce the stem count within the ROW corridor and improve accessibility to the lines in case of outages. A comparison of the 2009 to 2010 outage cause categories shows a reduction of outages for the Trees in ROW category in both the SAIDI and SAIFI indices.

SECTION 8: UTILITY COMMENTS

A review of the 10 worst performing circuits for 2010 shows that Trees outside of the ROW generally caused by high winds and lightning were the major cause of outages in both the SAIDI and SAIFI indices. Only one MED was recorded for the entire year of 2010 but again, as the indices indicate, smaller storms were still prevalent around the system. One substation had three circuits included in the top ten worst performer for 2010. It should be noted this substation was slated for complete ROW clearing during 2010 and a new substation for one of the long feeders is scheduled for completion in late 2011 or early 2012.

Work continues on bad conductor replacement and the rebuilding and rerouting of lines where previous ice storms have caused problems.

One of our long feeders on the Frenchburg substation in Menifee County will have permanent fault indicators installed at key points to aid in locating both temporary faults and permanent outages in a shorter timeframe.

The installation of substation SCADA for the remainder of our substations on the system should be completed in the latter part of 2011 along with power quality substation meters to monitor voltage and momentary outages. We are continuing our migration from Turtle 1 meters to Turtle 2 meters with several substations having the infrastructure installed this year. Turtle 2 should help speed up outage restoration by providing us with more timely outage information.

Clark Energy joined the 811 "Call before you dig" program to make it easier for our members and the general public to call before digging around our underground services and help to prevent outages.